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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,221	03/12/2004	Larry C. Wilkins	4090-156	7536

7590 05/04/2005

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EXAMINER

BELLAMY, TAMIKO D

ART UNIT PAPER NUMBER

2856

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,221

Applicant(s)

WILKINS, LARRY C.

Examiner

Tamiko D. Bellamy

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 42-78 is/are pending in the application.
- 4a) Of the above claim(s) 65-73 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42-46, 50 and 74-78 is/are rejected.
- 7) ☒ Claim(s) 47-49 and 51-64 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date. <u>7/1/04 and 8/9/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 1, and 65-73 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Groups I and III, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/14/05.

Claim Objections

2. Claims 75 and 76 are objected to because of the following informalities:
 - a. Claim 75, line 2, insert after the word "float" --follower --.
 - b. Claim 76, line 2, insert after the word "float" --follower --.Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 42-46, 50, and 74-78 are rejected under 35 U.S.C. 102(b) as being anticipated by MacDonald et al. (5,291,031).

Re claims 42 and 44, as depicted in fig. 1, MacDonald et al. discloses a holder (e.g., container 5) containing liquid, and a vertical pipe (e.g., tube 7) secured to the holder

(e.g., container 5). MacDonald et al. discloses a target (e.g., reflector 8) in the pipe (e.g., tube 7) arranged to rise and fall with the rise and fall of the surface of the liquid in the holder (e.g., container 5). As depicted in fig. 1, MacDonald et al. discloses a laser (e.g., laser diode 1)(Col. 3, lines 46-47) for transmitting signals longitudinally in the pipe to impinge on the target (e.g., reflector 8) in the pipe (e.g., tube 7) to be reflected by the target (e.g., reflector 8) back to the laser (e.g. laser diode 1). MacDonald et al. discloses a computer (e.g., electronics 11) coupled to the laser (e.g., laser diode 1) to compare time of transmission of the signals by the laser, with time of reception of the laser of the signals reflected back by the target (Col. 3., lines 64-68, Col. 4, lines 1-5).

Re claim 45, as depicted in fig. 1, MacDonald et al. discloses a float (10) associated with the pipe (e.g., tube 7) and operable to rise and fall in synchronism with the rise and fall of the surface of the liquid. MacDonald et al. discloses a float follower (9) magnetically coupled to the float (10). MacDonald et al. discloses the target (e.g., reflector 8) secured to the float follower (9) to rise and fall as the float rises and falls.

Re claim 46, as depicted in fig. 1, MacDonald et al. discloses a signal transmission tube (e.g., optical guide 2) coupled to the laser (e.g., laser diode 1) for the signals transmitted by the laser (1) into the pipe (e.g., tube 7). MacDonald et al. discloses a pipe (e.g., tube 7) having a receiver arranged to receive the transmission tube (e.g., optical guide 1) for providing a passageway for the signals produced by the laser (1), from the laser (1) through the pipe (e.g., tube 7) to the target (e.g., reflector 8), and return to the laser (1) signals reflected by the target (e.g., reflector 8), from the target (8) to the laser (1).

Re claim 50 as depicted in fig. 1, MacDonald et al. discloses the transmission tube (e.g., optical guide 2) and the receiver are configured to mate for establishing collinear axes of the transmission tube (2) and the pipe for transmission of the signals produced by the laser on the axis, from the laser (1) to the target (e.g., reflector 8).

Re claims 74 and 77, MacDonald et al. discloses a pipe (e.g., tube 7) for mounting in stable relation to the holder (e.g., container 5). MacDonald et al. discloses a target (e.g., reflector 8) in the pipe (e.g., tube 7), a laser (1), and a means (e.g., electronics 11) associated with the laser to determine the level of liquid in the holder (e.g. container 5).

Re claim 75, MacDonald et al. discloses the target (e.g., reflector 8) is on a float follower (9) located inside the pipe (e.g. tube 7) and moves along with a float (10) for floating on the liquid.

Re claim 76, as depicted in fig. 1 MacDonald et al. discloses the float flower (9) attached to a target (e.g., reflector 8) with a top surface for the reflection of laser energy when impinged on the top surface.

Re claim 78, as depicted in fig. 1 MacDonald et al. discloses a holder (e.g., container 5) containing a liquid, a pipe (e.g., tube 7) attached to the holder (e.g., container 5), and a target (e.g., reflector 8) floating on the liquid in the pipe (7).

Allowable Subject Matter

5. Claims 47-49, and 51-64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 7:30 AM to 3:30 PM.

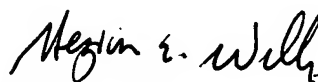
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy

T.B.

April 29, 2005



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
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